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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/354,500	07/16/99	SCHERMER	M GSIL-0109-PU

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HM12/1023

EXAMINER

ALLEN, M

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 10/23/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/354,500

Applicant(s)

SCHERMER ET AL.

Examiner

Marianne Allen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/6/01 has been entered.

Response to Arguments

Applicant's arguments filed 8/6/01 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 112

Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

Claims 1 and 10 have been amended to recite "sequentially generating" and "sequentially generates," respectively. Basis is stated to be on page 1, line 22. It is not agreed that this portion of the specification supports the claims as amended. This portion of the specification is describing Figure 2. Figure 2 is disclosed as background information to the invention. That is, what is known and conventional. The disclosure

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of applicant's invention does not specifically contemplate nor mention any "sequential" embodiments. It is not disclosed as a preferred embodiment.

Claim Rejections - 35 USC § 102

Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Shalon et al. (Genome Research, July 1996).

This rejection is maintained for reasons of record.

Applicant's arguments are not persuasive. Reference to Brown et al. (U.S. Patent No. 5,807,522) is proper in that it is establishing a fact concerning the Shalon et al. reference; namely, that the optical crosstalk referred to by Shalon et al. is considered by them as being caused by overlapping dye emission spectra.

Again, applicant's claims are not limited to particular correction factors or crosstalk-correction data. Applicant provides no reasoning as to why Shalon's experimentally determined coefficients do not meet the limitation of a correction factor.

Applicant argues that the claims require "sequential excitation." This is not what the claims recite. They recite "sequentially generating a dye image." To the degree that the images won't be completed simultaneously, Shalon et al. can be considered to meet the limitation of sequentially generating a dye image because one would be completed first followed by completion of the second.

Applicant's arguments concerning the detector arrangement of Shalon et al. is not persuasive as none of the claims possess particular limitations with respect to the detector.

Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Trulson et al. (U.S. Patent No. 5,578,832).

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Trulson et al. discloses correcting data with overlapping dye emission spectra in microarray analysis. Glass slides and fluorescent dyes are particularly disclosed. The microarray is scanned sequentially for each dye to produce dye images. The images are deconvoluted using ratios of brightness. The data is normalized. See abstract; column 4, lines 43 and 67; column 5, lines 18-40; columns 22-26 (particularly column 22, lines 45-57; and column 25, lines 28-47). While the reference does not explicitly refer to calibration dye spots using a single pure dye, it is reasonable to infer that single pure dye spots were used for calibration as such dye spots appear to have been routine in the art at the time of the invention. (See at least Schermer et al., U.S. Patent No. 6,075,613, at column 2, lines 20-50.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Brown et al. (U.S. Patent No. 5,807,522) and Sharon et al. in view of Trulson et al. (U.S. Patent No. 5,578,832).

Trulson et al. is applied as above.

Sharon et al. is applied as before.

Brown et al. is applied as before and discloses a method and system for scanning microarrays using two-color fluorescent detection and correcting optical cross talk due to overlapping emission spectra. (See columns 16-17.)

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Neither Shalon et al. nor Brown et al. disclose scanning the microarray multiple times to make sequential dye images. However, the disclosure of Trulson et al. makes clear that one of ordinary skill in the art would have known and been motivated to scan sequentially to correct cross talk due to overlapping emission spectra.

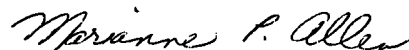
Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne P. Allen whose telephone number is 703-308-0666. The examiner can normally be reached on Monday-Friday, 9:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 703-308-4028. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-3014 for regular communications and 703-308-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1123.



Marianne P. Allen
Primary Examiner
Art Unit 1631

mpa
October 19, 2001